the Badin Mafic Macrosite. Directly across the Yadkin River from the Dutch John Creek Area is Morrow Mountain State Park.

Description of Natural Communities and Rare Plant Populations:

Dutch John Creek flows south through this site to its confluence with the Yadkin/Pee Dee River. The upland habitat supports a Dry Oak-Hickory Forest and the steep slopes support a Piedmont Heath Bluff. The dominant shrub in the Piedmont Heath Bluff is Kalmia latifolia (Mountain laurel). The sparse tree canopy is dominated with Quercus montana (Chestnut oak). The herb layer is sparse. The Piedmont Heath Bluff occurs along the steep slopes overlooking the Yadkin/Pee Dee River and steep ravines elsewhere on the site. Moderate to steep slopes along Dutch John Creek are also dominated with Kalmia latifolia (Mountain laurel).

The Dry Oak-Hickory Forest covers most of the site. The dominant trees vary from <u>Quercus</u> <u>montana</u> (Chestnut oak) in the uplands and <u>Quercus</u> <u>alba</u> (White oak) on the mid and lower slopes. <u>Quercus</u> <u>nigra</u> (Water oak) is common along the Yadkin River. Species of oaks and hickories are common, including <u>Carya glabra</u> (Pignut hickory), <u>Carya tomentosa</u> (Mockernut), and <u>Quercus velutina</u> (Black oak). The understory supports common trees such as <u>Cornus florida</u> (Flowering dogwood), <u>Oxydendrum arboreum</u> (Sourwood), and <u>Cercis canadensis</u> (Red bud). The herb layer is sparse in the Dry Oak-Hickory Forest and is dominated by <u>Vitis rotundifolia</u> (Muscadine).

Sections of the Dutch John Creek Area include pine plantations or young hardwoods due to past timbering. These sections occur on Uwharrie National Forest property. Timber around a 635 foot mountain varies in composition from pine, and immature to mature hardwoods. This mosaic also occurs to the west toward Falls Mountain, with an elevation of 795 feet. Extensive all terrain vehicle (ATV) use has impacted the herb and shrub layers on Falls Mountain and the Falls Dam Trail. Generally, the area north of Falls Dam Trail is pine and young hardwoods and the area to the south is mature hardwoods.

The highest quality portion of the Dutch John Creek Area occurs around The Beth Haltiwanger Retreat Center. The slopes between the Retreat Center and the Yadkin/Pee Dee River are steep and lined with large boulders. The partially open canopy allows for scenic vistas of the impounded Yadkin/Pee Dee River. The natural communities in this area are of high quality and worthy of protection.

Description of Faunal Communities and Rare Animal Populations:

During the botanical survey a couple forest interior bird species were noted which is indicative of the unfragmented forest in this area. These birds include Hylocichla mustelina (Wood thrush) and Coccyzus americanus (Yellow-billed cuckoo). Currently no populations of rare freshwater mussels are known to occur on Dutch John Creek. However, native and rare freshwater mussels may potentially exist in Dutch John Creek.

Management/Protection Recommendations: